

REMARKS

Claims 2-6 and 8-12 remain pending in the application.

Claim Rejections—Kalivas 35 U.S.C. § 103

Claims 2-4, 6 and 8-11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kalivas et al. ("Motion Compensated Enhancement of Noisy Image Sequences") in view of Prakash et al. (International Publication 00/64167). Claims 5 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kalivas et al. in view of Prakash et al. and further in view of Golin. Both rejections rely on Kalivas et al. in view of Prakash et al. Applicants respectfully traverse both these rejections.

A. *Kalivas et al. in view of Prakash et al. does not disclose or suggest "adjusting weights assigned to one or more frames for that lie within a blur region near said segment boundary"*

Claim 2 recites as follows.

2. A method for temporally filtering a video sequence, the method comprising:

using object motion estimation for arbitrarily shaped segments to align corresponding pixels between at least two frames;

determining segments that are no longer adjacent to a segment boundary based on said object motion estimation;

reducing impact of color blur from said segments that are no longer adjacent by **adjusting weights assigned to one or more frames for pixels that lie within a blur region near said segment boundary;** and

computing a weighted average of color values of said corresponding pixels.

(Emphasis added.)

As shown above, claim 2 recites “reducing impact of color blur from said segments that are no longer adjacent by **adjusting weights assigned to one or more frames for pixels that lie within a blur region near said segment boundary.**”

The latest office action states as follows in regard to the reasoning behind rejecting claim 2. “Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made **to modify the filter of Kalivas et al. to decrease the weight of exposed regions of an image**, as taught by Prakash et al., **since Prakash states in page 4: lines 14-17 that such a modification would reduce noise produced from residue between frames.**” (Page 6, lines 4-8, emphasis added.)

Applicants respectfully note that the above-cited statement by the Examiner goes far beyond the actual disclosure on page 4: lines 14-17 of Prakash et al. which relates only to the **noisiness of blocked-based matching and problems with compressing block-based residue**. In fact, page 4: lines 14-17 of Prakash et al. merely states, “Yet another major limitation of **block-based matching is generally noisy and patchy**. Thus, **block-based residues do not lend themselves to good compression** via standard image compression schemes such as DCT, wavelets, or fractals.” This citation does not in any way teach or suggest “to modify the filter of Kalivas et al. to decrease the weight of exposed regions of an image” as alleged in the office action.

Hence, applicants respectfully submit that the rejection of claim 2 is flawed and that no proper *prima facie* case of obviousness has been made against claim 2. Therefore, applicants respectfully submit that the rejection of claim 2 is now clearly overcome.

Claims 3-5 depend from claim 2. The citation to Golin does not cure the above-discussed deficiencies in the rejection of claim 2. Therefore, applicants respectfully submit that dependent claims 3-5 are patentable for at least the reasons discussed above in relation to claim 2.

Claim 6 recites similar limitations as claim 2. In particular, claim 6 recites, “wherein **weights assigned to one or more frames are adjusted for pixels that lie within a blur region near said segment boundary** to reduce impact of color blur from said segments that are no longer adjacent to said segment boundary.” (Emphasis added.) Therefore, applicants respectfully submit that the rejection of claim 6 is overcome for at least the reasons discussed above in relation to claim 2.

Claim 8 also recites similar limitations as claim 2. In particular, claim 8 recites, “**adjusting weights used to calculate the weighted average for pixels that are no longer adjacent** in order to compensate for blur transitions near object boundaries due to temporal changes in said previously adjacent objects.” (Emphasis added.) Therefore, applicants respectfully submit that claim 8 is patentable for at least the reasons discussed above in relation to claim 2.

Claims 9-12 depend from claim 8. Therefore, applicants respectfully submit that dependent claims 9-12 are patentable for at least the reasons discussed above in relation to claim 8.

B. No prima facie rejection has been made in regard to claims 4 and 11 as the Official Notice taken by the Examiner is improper and flawed

In rejecting claims 4 and 11, the Examiner states, "Kalivas et al. and Prakash et al. are silent regarding Group of Picture (GOP) structure. However, the examiner takes **Official Notice** that the limitation of 'determining additional motion information across GOP boundaries' is a well-known part of the MPEG standard." (Emphasis added.) Applicants respectfully traverse this official notice as improper and flawed.

First of all, applicants respectfully disagree that "...the limitation of 'determining additional motion information across GOP boundaries' is a well-known part of the MPEG standard." Applicants do not believe that this limitation is in the prior art.

Second, this official notice taken by the Examiner is unsupported and improper. As stated in MPEP 2144.03 A,

... While "official notice" may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 CFR 1.113. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). In *Ahlert*, the court held that the Board properly took judicial notice that "it is old to adjust intensity of a flame in accordance with the heat requirement." See also *In re Fox*, 471 F.2d 1405, 1407, 176 USPQ 340, 341 (CCPA 1973) (the court took "judicial notice of the fact that tape recorders commonly

erase tape automatically when new 'audio information' is recorded on a tape which already has a recording on it"). In appropriate circumstances, it might not be unreasonable to take official notice of the fact that it is desirable to make something faster, cheaper, better, or stronger without the specific support of documentary evidence. Furthermore, it might not be unreasonable for the examiner in a first Office action to take official notice of facts by asserting that certain limitations in a dependent claim are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character and serve only to "fill in the gaps" which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001); *Ahlert*, 424 F.2d at 1092, 165 USPQ at 421.

(Emphasis added.)

As discussed above in the MPEP, it is rare for official notice to be proper in a final rejection. For the official notice to be proper, "the examiner must be 'capable of such instant and unquestionable demonstration as to defy dispute.'"

Applicants respectfully submit that the official notice taken by the Examiner in this instance is improper because the facts are not "capable of such instant and unquestionable demonstration as to defy dispute." For example, it is questionable as to whether the facts taken under official notice are in fact prior art to the present application.

Therefore, applicants respectfully submit that the rejection of claims 4 and 11 is overcome.

Conclusion

For the above discussed reasons, applicants respectfully request withdrawal of the rejections of the latest office action.

The Examiner is invited to call the undersigned for any questions. Favorable action is respectfully solicited.

Respectfully submitted,

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